

## CLAIMS

What is claimed is:

1. A composition for the controlled release of interferon from a polymeric matrix, comprising:
  - 5 a) a biodegradable polymer selected from the group consisting of poly(lactides), poly(glycolides), poly(lactide-co-glycolides), poly(lactic acid)s, poly(glycolic acid)s, poly(lactic acid-co-glycolic acid)s, polycaprolactone, polycarbonates, polyesteramides, polyanhydrides, poly(amino acids), polyorthoesters, polyacetals, polycyanoacrylates,  
10 polyetheresters, poly(dioxanone)s, poly(alkylene alkylate)s, copolymers of polyethylene glycol and polyorthoester, biodegradable polyurethanes, blends thereof and copolymers thereof; and
  - b) particles of metal cation-complexed interferon, wherein said particles are dispersed within the biodegradable polymer and the interferon is present  
15 from about 0.1% (w/w) to about 50% (w/w) of the dry weight of the composition.
2. The composition of Claim 1 wherein the interferon is present from about 0.1 (w/w) to about 30% (w/w) of the dry weight of the composition.
3. The controlled release composition of Claim 1 wherein the metal cation-to-  
20 interferon molar ratio is from about 1:1 and 10:1.
4. The controlled release composition of Claim 3 wherein the metal cation to interferon molar ratio is about 2:1.

5. The controlled release composition of Claim 1 wherein the metal cation of said metal cation-complexed interferon contains at least one type of biocompatible multivalent cation, wherein said cation is not significantly oxidizing to interferon.
- 5 6. The controlled release composition of Claim 5 wherein said multivalent cation is selected from the group consisting of  $\text{Zn}^{+2}$ ,  $\text{Ca}^{+2}$ ,  $\text{Cu}^{+2}$ ,  $\text{Mg}^{+2}$  and combinations thereof.
7. The controlled release composition of Claim 1 wherein the interferon is interferon- $\alpha$ .
- 10 8. A controlled release composition of Claim 1 wherein the biodegradable polymer is a poly(lactide-co-glycolide).
9. A controlled release composition of Claim 1 further comprising a second metal cation component, wherein the second metal cation component is not contained in said interferon particles, and wherein the second metal cation component is dispersed within the biocompatible polymer to modulate the release of interferon from the polymeric matrix.
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10. A controlled release composition of Claim 9 wherein the second metal cation component is selected from the group consisting of magnesium hydroxide, magnesium carbonate, calcium carbonate, zinc carbonate, magnesium acetate, zinc acetate, magnesium sulfate, zinc sulfate, magnesium chloride, zinc chloride, zinc citrate, magnesium citrate and a combination thereof.
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